```
### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)
Trying 31060000009999...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ******** HHHHHHHH SSSSSSSS?
### Status: Signing onto Dialog
 ********
ENTER PASSWORD:
 ******** HHHHHHHH SSSSSSSS? ********
Welcome to DIALOG
### Status: Connected


Dialog level 03.07.00D

Last logoff:  13feb04 17:43:48
Logon file001 19feb04 13:48:40
           *** ANNOUNCEMENT ***
                     ***
--Files 154/155 - MEDLINE has been reloaded. Please see
HELP NEWS 154 for details.

                     ***
--File 654 - US published applications from March 15, 2001 to the
present are now online.  Please see HELP NEWS 654 for details.

                     ***
--File 581 - The 2003 annual reload of Population Demographics is
complete. Please see Help News581 for details.


                    ***
--File 990 - NewsRoom now contains February 2003 to current records.
File 992 - NewsRoom 2003 archive has been newly created and contains
records from January 2003. The oldest months's records roll out of
File 990 and into File 992 on the first weekend of each month.
To search all 2003 records BEGIN 990, 992, or B NEWS2003, a new
OneSearch category.
                     ***
--Connect Time joins DialUnits as pricing options on Dialog.
See HELP CONNECT for information.
                     ***
                     ***
--SourceOne patents are now delivered to your email inbox
as PDF replacing TIFF delivery. See HELP SOURCE1 for more
information.
                    ***
--Important news for public and academic
libraries.  See HELP LIBRARY for more information.
                     ***
--Important Notice to Freelance Authors--
See HELP FREELANCE for more information
                     ***
NEW FILES RELEASED
***DIOGENES: Adverse Drug Events Database (File 181)
***World News Connection (File 985)
***Dialog NewsRoom - 2003 Archive (File 992)
***TRADEMARKSCAN-Czech Republic (File 680)
***TRADEMARKSCAN-Hungary (File 681)
***TRADEMARKSCAN-Poland  (File 682)
                     ***
UPDATING RESUMED
                     ***
```

```
'RELOADED
***Population Demographics -(File 581)
***CLAIMS Citation (Files 220-222)

REMOVED
                    ***

      >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
      >>>    of new databases, price changes, etc.      <<<
                    ****
KWIC is set to 50.
HILIGHT set on as '*'
*
*
* ALL NEW CURRENT YEAR RANGES HAVE BEEN * * *
* * * INSTALLED   * * *

File   1:ERIC  1966-2004/Feb 04
       (c) format only 2004 The Dialog Corporation

      Set  Items  Description
      ---  -----  -----------
Cost is in DialUnits
?b 155, 159, 5, 73
       19feb04 13:48:57 User259876 Session D594.1
            $0.32    0.090 DialUnits File1
     $0.32  Estimated cost File1
     $0.06  TELNET
     $0.38  Estimated cost this search
     $0.38  Estimated total session cost   0.090 DialUnits


SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-2004/Feb W3
        (c) format only 2004 The Dialog Corp.
*File 155: Medline has been reloaded. Accession numbers
have changed. Please see HELP NEWS 154 for details.
  File 159:Cancerlit  1975-2002/Oct
        (c) format only 2002 Dialog Corporation
*File 159: Cancerlit ceases updating with immediate effect.
Please see HELP NEWS.
  File   5:Biosis Previews(R)  1969-2004/Feb W3
        (c) 2004 BIOSIS
  File  73:EMBASE  1974-2004/Feb W3
        (c) 2004 Elsevier Science B.V.

      Set  Items  Description
      ---  -----  -----------
?s (IRAP) or (interleukin-1 (w) receptor (w) antagonist)
           495  IRAP
         58880  INTERLEUKIN-1
       1850170  RECEPTOR
        428011  ANTAGONIST
             0  INTERLEUKIN-1(W)RECEPTOR(W)ANTAGONIST
      S1     495  (IRAP) OR (INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONIST)
?s s1 (s) (gene or vector or DNA)
Processing
Processing
Processing
           495  S1
       2416504  GENE
        277769  VECTOR
       2523320  DNA
      S2      90  S1 (S) (GENE OR VECTOR OR DNA)
?s s2 and ((gene (w) therapy) or (in (w) vivo (w) delivery))
Processing
Processing
```

```
'Processing
              90  S2
         2416504  GENE
         5340217  THERAPY
           79132  GENE(W)THERAPY
        28591644  IN
         1141130  VIVO
          424458  DELIVERY
             804  IN(W)VIVO(W)DELIVERY
      S3      39  S2 AND ((GENE (W) THERAPY) OR (IN (W) VIVO (W) DELIVERY))
?s s3 and (osteoarthritis or (joint (w) disease) or rheumatoid)
              39  S3
           55782  OSTEOARTHRITIS
          378965  JOINT
         5628253  DISEASE
           41013  JOINT(W)DISEASE
          192273  RHEUMATOID
      S4      20  S3 AND (OSTEOARTHRITIS OR (JOINT (W) DISEASE) OR
                  RHEUMATOID)
?s s4 and (equine (w) interleukin-1 (w) receptor (w) antagonist)
              20  S4
           39516  EQUINE
           58880  INTERLEUKIN-1
         1850170  RECEPTOR
          428011  ANTAGONIST
               0  EQUINE(W)INTERLEUKIN-1(W)RECEPTOR(W)ANTAGONIST
      S5       0  S4 AND (EQUINE (W) INTERLEUKIN-1 (W) RECEPTOR (W)
                  ANTAGONIST)
?rd s4
...completed examining records
      S6      11  RD S4 (unique items)
?t s6/3,k/all

 6/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.

14261686   PMID: 10081047
  [Gene transfer in the treatment of arthritis]
  Gentherapeutische Ansatze in der Arthrosebehandlung.
  Moller H D; Evans C H
  Orthopadische Klinik, Medizinische Hochschule Hannover.
  Der Orthopade (GERMANY)   Jan 1999,  28  (1)  p76-81,  ISSN 0085-4530
Journal Code: 0331266
  Document type: Journal Article ; English Abstract
  Languages: GERMAN
  Main Citation Owner: NLM
  Record type: Completed

  Current concepts in treating arthritis by *gene* transfer are described,
including different *vector* systems and strategies of *gene* transfer into
target cells. Promissing antiarthritic *gene* products are a variety of
growth factors which facilitate increased matrix synthesis and mitogensis
in articular chondrocytes. Furthermore, *rheumatoid* joint destruction can
be treated genetically by the transfer of certain antiinflammatory cytokine
genes, which provide locally high concentrations of the antiinflammatory
*gene* product. First clinical trails using the *IRAP* *gene* (interleukin
I receptor antagonist protein) to eliminate the inflammatory reaction
caused by interleukin I in *rheumatoid* joints are on its way. In order to
investigate potential improvement in cartilage regeneration retroviral
TGF-beta *gene* transfer in rabbit articular chondrocytes has been carried
out. The TGF-beta group showed an in vitro increase in collagen type II
neosynthesis by 304...
  Descriptors: Arthritis--genetics--GE; **Gene* *Therapy*; *Gene Transfer
Techniques
```

6/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12942301 PMID: 8617986
Suppression of antigen-induced arthritis in rabbits by ex vivo *gene* *therapy*.
Otani K; Nita I; Macaulay W; Georgescu H I; Robbins P D; Evans C H
Department of Orthopaedic Surgery, University of Pittsburgh School of Medicine, PA 15261, USA.
Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) May 1 1996, 156 (9) p3558-62, ISSN 0022-1767 Journal Code: 2985117R
Contract/Grant No.: DK44935; DK; NIDDK
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Suppression of antigen-induced arthritis in rabbits by ex vivo *gene* *therapy*.
Gene *therapy* offers a novel approach to treating human joint diseases such as *rheumatoid* arthritis. In the present study, we have used the retrovirus, MFG-*IRAP* , to transfer the human IL-1 receptor antagonist protein (*IRAP*) *gene* to rabbits' knees and have assessed its impact on inflammatory and chondrodestructive aspects of the acute phase of antigen-induced arthritis in these joints. Surprisingly, intra-articular expression of *IRAP* was three- to fivefold higher in arthritic knees than in nonarthritic knees, accumulating to levels of over 20 ng/knee in the highest expressing joints...

... Both the increased cartilage matrix catabolism and the inhibition of matrix synthesis that occur in antigen-induced arthritis were abrogated in the presence of the *IRAP* *gene* ; the latter effect was particularly strong. Of the indices of inflammation that were examined, only leukocyte influx into the joint space was inhibited, and this effect declined with time. Concentrations of rabbit IL-1 were reduced by the *IRAP* *gene*, suggesting inhibition of an autocrine induction loop. These data demonstrate that the course of arthritic disease in the rabbit knee can be altered by genetic manipulation, thus encouraging the further development of *gene* treatments for human joint diseases.
Descriptors: Arthritis--immunology--IM; *Arthritis--therapy--TH; **Gene* *Therapy*; *Sialoglycoproteins--genetics--GE; *Sialoglycoproteins --therapeutic use--TU; Animals; Arthritis--genetics--GE; Cartilage --metabolism--ME; *Gene* *Therapy*--methods--MT; Gene Transfer Techniques; Injections, Intra-Articular; Interleukin-1--analysis--AN; Knee Joint --chemistry--CH; Knee Joint--pathology--PA; Rabbits; Sialoglycoproteins --administration and dosage...

6/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11209315 PMID: 11249573
MFG-IRAP University of Pittsburgh.
Baragi V M
Pfizer Global Research and Development, 2800 Plymouth Road, Ann Arbor, MI 48105, USA. Vijaykumar.Baragi@pfizer.com
Current opinion in investigational drugs (London, England - 2000) (England) Oct 2000, 1 (2) p194-8, ISSN 1472-4472 Journal Code: 100965718
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

The University of Pittsburgh is developing MFG-*IRAP* *gene* *therapy*

for the potential treatment of arthritis. Phase II studies have commenced, including one trial in arthritis patients [225365]. A retrovirus (MFG-*IRAP*) is used in the ex vivo transfer of a cDNA encoding the human interleukin-1 receptor antagonist (IL-1Ra). The therapy is being tested in post-menopausal women, and involves the removal of some of their synovium, which is then transfected with the *IRAP* *gene* and reimplanted into the joint [188197]. A phase I *rheumatoid* arthritis trial of a therapy using the IL-1 antagonist *gene* *therapy* in synergy with soluble TNF alpha receptors was reported in March 1999 and was considered to be effective in producing an anti-arthritic effect [318398].

Descriptors: Antirheumatic Agents--therapeutic use--TU; *Arthritis --therapy--TH; *Drugs, Investigational--therapeutic use--TU; **Gene* *Therapy*--methods--MT

6/3,K/4 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

11209310 PMID: 11249645

Technology evaluation: MFG-IRAP, University of Pittsburgh.

Baragi V M

Parke-Davis Pharmaceutical Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105, USA. Vijaykumar.Baragi@wl.com

Current opinion in molecular therapeutics (England) Apr 2000, 2 (2) p216-20, ISSN 1464-8431 Journal Code: 100891485

Document type: Clinical Trial; Clinical Trial, Phase I; Clinical Trial, Phase II; Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The University of Pittsburgh is developing MFG-*IRAP*, a retroviral *vector* carrying the human interleukin-1 receptor antagonist protein (*IRAP*) cDNA for potential treatment of arthritis. MFG-*IRAP* *gene* *therapy* was effective in local *gene* delivery to synovial lining of joints and systemically to hematopoietic stem cells, in preclinical studies. Intra-articular expression of *IRAP*, although transient (4 to 6 weeks), was efficacious in several animal models of arthritis. On the other hand, systemic transgene expression was prolonged (15 months), but was relatively less efficacious. Clinical data on the safety of MFG-*IRAP* therapy per se are limited, however, recombinant *IRAP* studies in humans have not resulted in any serious adverse effects. Phase II studies, including a trial in arthritis patients should provide the much anticipated MFG-*IRAP* efficacy data.

Descriptors: *Gene* *Therapy*--methods--MT; *Receptors, Interleukin-1 --antagonists and inhibitors--AI; *Sialoglycoproteins--genetics--GE; *Sialoglycoproteins--therapeutic use--TU; Animals; Arthritis, *Rheumatoid* --therapy--TH; Biotechnology; Gene Expression; Injections, Intra-Articular; *Osteoarthritis*--therapy--TH; Recombinant Proteins--genetics--GE; Recombinant Proteins--therapeutic use--TU

6/3,K/5 (Item 5 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

10146462 PMID: 8038709

The interleukin-1 receptor antagonist and its delivery by gene transfer.

Evans C H; Robbins P D

Department of Orthopaedic Surgery, University of Pittsburgh, School of Medicine, PA 15261.

Receptor (UNITED STATES) Spring 1994, 4 (1) p9-15, ISSN 1052-8040 Journal Code: 9109671

Contract/Grant No.: NIDDK R01 DK46640; DK; NIDDK

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM
Record type: Completed

The interleukin-1 receptor antagonist (IL-1ra or *IRAP*) is a small, acidic glycoprotein that competitively inhibits the biological activities of interleukin-1 (IL-1). Alternative splicing gives rise to secreted and intracellular forms...

... 1ra is being tested in clinical trials of a number of human diseases where IL-1 plays a major pathophysiologic role. These diseases include sepsis, *rheumatoid* arthritis, chronic myelogenous leukemia, and asthma, among others. Although IL-1ra has clear pharmacologic potential in such conditions, its application in chronic diseases is limited by difficulties associated with delivering proteins as drugs. As an alternative, we have suggested transfer of the *gene* coding for IL-1ra; strategies for both local and systemic *gene* delivery are being developed. (ABSTRACT TRUNCATED AT 250 WORDS)

Descriptors: *Gene* *Therapy*--methods--MT; *Interleukin-1--metabolism --ME; *Receptors, Interleukin-1--antagonists and inhibitors--AI; *Sialoglycoproteins--therapeutic use--TU

6/3,K/6 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010927025 BIOSIS NO.: 199799561085
Prevention of murine collagen-induced arthritis in the knee and ipsilateral paw by local expression of human interleukin-1 receptor antagonist protein in the knee
AUTHOR: Bakker Andrew C (Reprint); Joosten Leo A B; Arntz Onno J; Helsen Monique M A; Bendele Alison M; Van De Loo Fons A J; Van Den Berg Wim B
AUTHOR ADDRESS: Dep. Rheumatology, P.O. Box 9101, 6500 HB Nijmegen, Netherlands**Netherlands
JOURNAL: Arthritis and Rheumatism 40 (5): p893-900 1997 1997
ISSN: 0004-3591
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Objective. To determine the efficacy of local human interleukin-1 receptor antagonist (HuIL-1Ra) *gene* *therapy* in murine collagen-induced arthritis (CIA). Methods. DBA/1 mice were immunized against bovine type II collagen. Before the onset of arthritis, NIH/3T3 fibroblasts transfected with pMFG-*IRAP* were transplanted into the knee cavity. Normal NIH/3T3 cells served as controls. Paws were evaluated macroscopically for redness, swelling, and deformities during the course ...

...joints containing normal cells showed severe inflammation and destruction of cartilage. Moreover, onset of CIA in the draining joints (ipsilateral paws) of the HuIL-1Ra *gene*-bearing knees was also prevented. Conclusion. Local production of HuIL-1Ra in the knee was able to ameliorate the effects of IL-1 on cartilage and could prevent the onset of CIA not only in that knee, but also in the "draining" paw. This indicates the feasibility of *gene* transfer as a therapeutic approach to modulating arthritis.
DESCRIPTORS:
MISCELLANEOUS TERMS: ...*JOINT* *DISEASE*;

6/3,K/7 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010125111 BIOSIS NO.: 199698592944
Prolonged systemic expression of human IL-1 receptor antagonist (hIL-1ra)

in mice reconstituted with hematopoietic cells transduced with a retrovirus carrying the hIL-1ra cDNA

AUTHOR: Boggs S S (Reprint); Patrene K D; Mueller G M; Evans C H; Doughty L A; Robbins P D

AUTHOR ADDRESS: A-549.1 Scaife Hall, Univ. Pittsb., Pittsburgh, PA 15261, USA**USA

JOURNAL: Gene Therapy 2 (9): p632-638 1995 1995

ISSN: 0969-7128

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

...ABSTRACT: expression of high levels of secreted human interleukin-1 receptor antagonist (hIL-1ra) protein in mice by retroviral transduction of hematopoietic stem cells. The retroviral *vector*, CRIP-MFG-hIL-1ra (MFG-*IRAP*) carrying the hIL-1ra *gene* was used to infect mouse bone marrow (BM) which was subsequently injected into lethally irradiated mice. All of the mice survived and greater than 98...

...well and their WBC counts and hematocrit (HCT) were not significantly different from those of lethally-irradiated mice given BM cells infected with the same *vector* carrying the lacZ *gene*. There was also no evidence of alterations of white cell subpopulations. These results demonstrate that systemic production of biologically active hIL-1ra can be obtained by retrovirus-mediated *gene* transfer to hematopoietic stem cells and that this level of expression and secretion into the serum is compatible with normal BM engraftment, hematopoietic recovery and...

...examine the functions of IL-1 and hIL-1ra and to determine the ability of hIL-1ra to reduce susceptibility to chronic diseases such as *rheumatoid* arthritis as well as effects of aging such as bone degeneration. The data further suggest that transduction and transplantation of hematopoietic stem cells is a potential method for delivery of hIl-1ra and other secreted therapeutic *gene* products for systemic diseases.

DESCRIPTORS:

MISCELLANEOUS TERMS: ...*GENE* *THERAPY*; ...

...*RHEUMATOID* ARTHRITIS

6/3,K/8 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

0010068439 BIOSIS NO.: 199598536272

***Gene* transfer of interleukin-I receptor antagonist (*IRAP*) into human synovial fibroblasts and implantation into the SCID mouse**

AUTHOR: Muller-Ladner Ulf (Reprint); Roberts Charles R (Reprint); Franklin Barry N (Reprint); Gay Renate E (Reprint); Robbins Paul D; Evans Chris; Gay Steffen (Reprint)

AUTHOR ADDRESS: Div. Clin. Immun. Rheum., Dep. Med., Univ. Alabama, Birmingham, AL 35294, USA**USA

JOURNAL: Arthritis and Rheumatism 38 (9 SUPPL.): pS398 1995 1995

CONFERENCE/MEETING: 59th National Scientific Meeting of the American College of Rheumatology and the 30th National Scientific Meeting of the Association of Rheumatology Health Professionals San Francisco, California, USA October 21-26, 1995; 19951021

ISSN: 0004-3591

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Citation

LANGUAGE: English

***Gene* transfer of interleukin-I receptor antagonist (*IRAP*) into human synovial fibroblasts and implantation into the SCID mouse**

DESCRIPTORS:

MISCELLANEOUS TERMS: *GENE* *THERAPY*; ...

...*RHEUMATOID* ARTHRITIS TREATMENT

6/3,K/9 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009000649 BIOSIS NO.: 199497021934
Intraarticular expression of *IRAP* by *gene* transfer: Inhibition of IL-1-induced pathology
AUTHOR: Hung G L; Mueller G; Galea-Lauri J; Georgescu H L; McIntyre L A; Tindal M H; Robbins P D; Evans C H
AUTHOR ADDRESS: Univ. Pittsburgh, Pittsburgh, PA 15261, USA**USA
JOURNAL: Arthritis and Rheumatism 36 (9 SUPPL.): pS46 1993 1993
CONFERENCE/MEETING: 57th Annual Scientific Meeting of the American College of Rheumatology San Antonio, Texas, USA November 7-11, 1993; 19931107
ISSN: 0004-3591
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Citation
LANGUAGE: English

Intraarticular expression of *IRAP* by *gene* transfer: Inhibition of IL-1-induced pathology
DESCRIPTORS:
MISCELLANEOUS TERMS: *GENE* *THERAPY*; ...

...*RHEUMATOID* ARTHRITIS

6/3,K/10 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

07697232 EMBASE No: 1999179269
In vitro transduction of human osteoblastic cells using retroviral vectors
IN VITRO TRANSDUKTION HUMANER OSTEOBLASTARER ZELLPOPULATIONEN MIT RETROVIRALEN VEKTOREN
Baltzer A.W.A.; Whalen J.D.; Muzzonegro T.; Georgescu H.I.; Robbins P.D.; Evans C.H.
Dr. A.W.A. Baltzer, Orthopadische Klinik, Heinrich-Heine-Univ. Dusseldorf, Moorenstrasse 5, D-40225 Dusseldorf Germany
AUTHOR EMAIL: axel.baltzer@uni-duesseldorf.de
Zeitschrift fur Rheumatologie (Z. RHEUMATOL.) (Germany) 1999, 58/2 (88-94)
CODEN: ZRHMB ISSN: 0340-1855
DOCUMENT TYPE: Journal; Article
LANGUAGE: GERMAN SUMMARY LANGUAGE: ENGLISH; GERMAN
NUMBER OF REFERENCES: 22

...degeneration and inflammation of human tissue is well established. Interleukin- 1 (IL-1) is a major agent in the pathophysiology of periarticular bone resorption in *rheumatoid* arthritis and in osteoporosis. Because the use of recombinant cytokines and growth factors is limited due to their short half lives, techniques are needed to...

...these therapeutic proteins. The rational of this study was to show that retroviral transduction of human osteoblastic cells is possible in vitro using the marker *gene* LacZ and the potentially therapeutic *gene* encoding for human interleukin-1 receptor antagonist protein (IL-1Ra). Different transduction techniques were combined to improve the rate of transduction in vitro. Methods: Osteoblastic cells were isolated from human spongious bone and cultured in vitro. The beta- galactosidase (LacZ) *gene* and the cDNA of IL-1Ra were introduced into the isolated cells by retrovirus mediated *gene* transfer. LacZ activity was determined by Xga staining, IL-1Ra was measured quantitatively by ELISA. Results: The transfer of retroviral IL-1Ra led to IL-1Ra expression of 8614 to 10089 pg

IRAP/50 000 cells/48 h. By combining different techniques to improve transduction, the X-gal staining established a rate of transduction of 60%. Conclusion: Our...
MEDICAL DESCRIPTORS:
**rheumatoid* arthritis; *osteoporosis; *osteolysis
osteoblast; cytokine production; gene transfer; retrovirus; enzyme linked immunosorbent assay; transgene; *gene* *therapy*; gene expression; human; human cell; article

6/3,K/11 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

07619969 EMBASE No: 1999109826
Therapy of arthritis by gene transfer
GENTHERAPEUTISCHE ANSATZE IN DER ARTHROSEBEHANDLUNG
Moller H.D.; Evans C.H.
Dr. H.D. Moller, Orthopaidische Klinik, Medizinische Hochschule Hannover, Heimchenstrasse 1-7, D-30 625 Hannover Germany
Orthopade (ORTHOPADE) (Germany) 1999, 28/1 (76-81)
CODEN: ORHPB ISSN: 0085-4530
DOCUMENT TYPE: Journal; Review
LANGUAGE: GERMAN SUMMARY LANGUAGE: ENGLISH; GERMAN
NUMBER OF REFERENCES: 35

Current concepts in treating arthritis by *gene* transfer are described, including different *vector* systems and strategies of *gene* transfer into target cells. Promising antiarthritic *gene* products are a variety of growth factors which facilitate increased matrix synthesis and mitogenesis in articular chondrocytes. Furthermore, *rheumatoid* joint destruction can be treated genetically by the transfer of certain antiinflammatory cytokine genes, which provide locally high concentrations of the antiinflammatory *gene* product. First clinical trails using the *IRAP* *gene* (interleukin I receptor antagonist protein) to eliminate the inflammatory reaction caused by interleukin I in *rheumatoid* joints are on its way. In order to investigate potential improvement in cartilage regeneration retroviral TGF-beta *gene* transfer in rabbit articular chondrocytes has been carried out. The TGF-beta group showed an in vitro increase in collagen type II neosynthesis by 304...
MEDICAL DESCRIPTORS:
*arthritis--therapy--th; **gene* *therapy*
?ds

```
Set     Items   Description
S1        495   (IRAP) OR (INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONIST)
S2         90   S1 (S) (GENE OR VECTOR OR DNA)
S3         39   S2 AND ((GENE (W) THERAPY) OR (IN (W) VIVO (W) DELIVERY))
S4         20   S3 AND (OSTEOARTHRITIS OR (JOINT (W) DISEASE) OR RHEUMATOI-
                  D)
S5          0   S4 AND (EQUINE (W) INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONI-
                  ST)
S6         11   RD S4 (unique items)
?s (equine (w) interleukin-1 (w) receptor (w) antagonist)
           39516  EQUINE
           58880  INTERLEUKIN-1
         1850170  RECEPTOR
          428011  ANTAGONIST
      S7       0  (EQUINE (W) INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONIST)
?ds

Set     Items   Description
S1        495   (IRAP) OR (INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONIST)
S2         90   S1 (S) (GENE OR VECTOR OR DNA)
S3         39   S2 AND ((GENE (W) THERAPY) OR (IN (W) VIVO (W) DELIVERY))
S4         20   S3 AND (OSTEOARTHRITIS OR (JOINT (W) DISEASE) OR RHEUMATOI-
                  D)
```

```
S5          0   S4 AND (EQUINE (W) INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONI-
              ST)
S6         11   RD S4 (unique items)
S7          0   (EQUINE (W) INTERLEUKIN-1 (W) RECEPTOR (W) ANTAGONIST)
?logoff
       19feb04 13:57:24 User259876 Session D594.2
           $10.06    3.144 DialUnits File155
              $1.05  5 Type(s) in Format  3
            $1.05  5 Types
    $11.11  Estimated cost File155
            $1.22    0.413 DialUnits File159
     $1.22  Estimated cost File159
            $8.43    1.505 DialUnits File5
              $7.00  4 Type(s) in Format  3
            $7.00  4 Types
    $15.43  Estimated cost File5
           $13.13    1.339 DialUnits File73
              $5.40  2 Type(s) in Format  3
            $5.40  2 Types
    $18.53  Estimated cost File73
            OneSearch, 4 files,  6.401 DialUnits FileOS
     $2.25  TELNET
    $48.54  Estimated cost this search
    $48.92  Estimated total session cost   6.491 DialUnits


### Status: Signed Off. (9 minutes)
```